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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,576	07/27/2001	Noriko Yagi	1403-0214P	8192

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

WYROZEBSKI LEE, KATARZYNA I

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/915,576

Applicant(s)

YAGI ET AL.

Examiner

Katarzyna Wyrozewski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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In view of applicant's amendment submitted on February 17<sup>th</sup>, 2005 following final office action is issued as necessitated by amendment.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3, 4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over STUHLBREHER (US 6,080,809) or its equivalent EP 894,819 in view of FREEMAN (US 5,840,795).

The prior art of Stuhldreher discloses composition for tread of a passenger tire. The composition according to Table I comprises:

Solution SBR	90.75 with (SBR 75 pbw)
Cis BR	25 pbw
N110 carbon black	41 pbw
Silica	30 pbw
Clay	10 pbw
Silane coupling agent	6 pbw

From the above information, it is clear that the amount of clay and silica is more than 30 pbw and the amount of carbon black, silica and clay is less than 100 pbw.

The properties of the components according to the specification are as follows: Clay has median particle size of from about 0.2 microns, which includes small particles size of 0.5-10 microns (col. 2, lines 16-18). Preferred silane coupling agent is Si69 (col. 2, lines 25-26). Silica has  $N_2SA$  of 190-220  $m^2/g$  (col. 2, lines 35-36). Although the nitrogen absorption of N110 is not specifically described in the prior art of Stuhldreher, one of ordinary skill in the art with

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knowledge of reinforcing carbon blacks would know that it is approximately 125 m<sup>2</sup>/g either from other documents cited in this office action or from website [www.stochem.com](http://www.stochem.com) (courtesy copy was provided with the first office action on the merits dated 6/6/2003).

The difference between the present invention and the disclosure of STUHLREDER is a tire composition that can utilize higher amounts of clay as well as specific recitation of the particle size of clay that can be utilized in the tire compositions.

With respect to the above disclosure, the prior art of FREEMAN teaches rubber tire composition comprising natural or synthetic rubber and clay reinforcement.

Rubber composition of FREEMAN kaolin clay treated with silane (col. 6) in amount of 0.1-5 wt %, total amount of clay utilized in is a range of 10-225 pbw.

Particle size of the clay component is in a range of about 2 microns with median being 1.9-2.9 microns.

The prior art of FREEMAN teaches that kaolin clay can be substituted for either silica or carbon black and its substitution is governed by the specific gravity. Therefore, the prior art of FREEMAN teaches that one can actually substitute large amounts of clay *in lieu* of silica when taking into consideration effects of specific gravity.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize higher amounts of clays as disclosed in FREEMAN in the composition of STUHLREDER and thereby obtain the claimed invention. When taking under consideration effects of specific gravity while making such substitution, one would still be able to obtain a tire composition.

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5. Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over STUHLREHER (US 6,080,809) in view of FUKUMOTO (US 5,591,794).

In the event the applicants overcome 102 rejection of record, following 103 rejection is stated.

The discussion of the disclosure of the prior art of STUHLREHER from paragraph 2 of this office action is incorporated here by reference.

The difference between the present invention and the disclosure of the prior art of STUHLREHER is specific recitation of particle size of the clay.

With respect to the above difference, the prior art of FUKUMOTO teaches that the clay component that is utilized in making tire treads has particle size of 1 micron (col. 2, lines 42-45) since it has better reinforcing properties.

Use of clay component having particle size of 1 micron provides composition-having clay with good reinforcing properties.

In the light of the above disclosure it would have been obvious to one having ordinary skill in the art at the time of the instant invention, it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize clay of FUKUMOTO in the composition of STUHLREHER and thereby obtain the claimed invention. Using clay having particle size, as that disclosed in FUKUMOTO would provide adequately reinforced tire tread composition.

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6. Applicants have raised following arguments in the amendment dated February 17<sup>th</sup>, 2005

a) Arguments of the anticipation rejection over the prior art of STUHLDER are considered moot since this particular rejection is overcome.

b) The prior art of FUKUMOTO although teaches 1-40 pbw of clay the examples utilize maximum of 22 pbw.

With respect to the above argument, the Abstract of FUKUMOTO teaches 30-100 pbw of clay. The examples applicants are referring to, more specifically example C utilize 40 pbw of clay. Even if the amounts of clay were outside of the range claimed in the present invention, the examiner cannot limit her consideration of the prior art to the examples alone. When making rejections (especially obviousness type rejections) an entire reference has to be considered and evaluated. The same argument would apply to another argument presented by the applicant, which indicates that the examples do not disclose addition of silica.

c) Since the prior art of FUKUMOTO does not add silica, it therefore does not try to solve the same problems as the present invention, applicants invention would not be obvious.

With respect to the above argument applicants indicated earlier in the arguments, that FUKUMOTO teaches that addition of silica is preferred, therefore the applicants do not seem to be consistent with their arguments. Also the reasons for utilizing prior art reference used by the examiners do not have to be the same as the reasons of applicants. In fact present claims simply call for a composition.

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7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

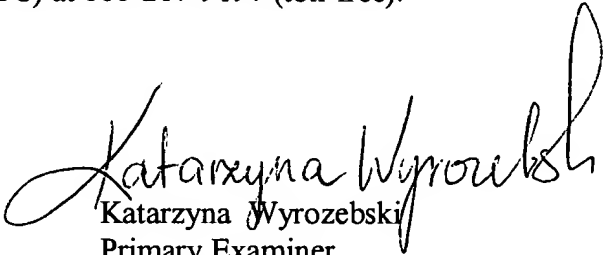
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Katarzyna Wyrozebski  
Primary Examiner  
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April 12, 2005